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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/024,980 | 12/19/2001 | Dong-Woo Kim | 678-766 (P9755) | 4825 |

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| EXAMINER |
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CHO, UN C

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| ART UNIT | PAPER NUMBER |
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2687

DATE MAILED: 05/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/024,980

Applicant(s)

KIM, DONG-WOO

Examiner

Un C Cho

Art Unit

2687

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2005.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-11 is/are rejected.
7) ☒ Claim(s) 5 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 19 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/31/2005 has been entered.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Objections

3. Claim 5 is objected to because of the following informalities:

Regarding claim 5, line 7 of the claim recites, "... device mounted ino ..." it should be "... device mounted in ..." instead.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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5. Claims 1, 3 and 5 – 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 3 and 5 – 10 contain the trademark/trade name Bluetooth. Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe a short-range RF transceiver and, accordingly, the identification/description is indefinite.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 2 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liang (US 6,625,282 B2) in view of Magnasco et al. (US 6,016,347).

Regarding claim 1, Liang discloses a wireless headset (Fig. 1, 40) with a Bluetooth module (not shown), comprising a microphone supporting member having a microphone (Fig. 1, 42) installed therein and a controller (not shown) connected to the sensing device (Fig. 1, 43) and the Bluetooth module, the controller being operative to establish a link between the wireless headset and a master terminal (controller unit, Fig. 1, 20) registered in the wireless headset (Liang, Col. 3, lines 66 through Col 4, lines 1 – 12).

However, Liang as applied above does not specifically disclose a connector located between the microphone supporting member and a main body of the wireless headset and coupled thereto to allow for displacement of the main body and microphone supporting member relative to one another between a folding and unfolding position; a sensing device located in the connector for automatically determining whether the microphone supporting member and a main body are displaced to one of the folding and unfolding positions; and a controller connected to the sensing device and the Bluetooth module, the controller being operative to establish a link between the wireless headset and a master terminal registered in the wireless headset if it is determined that the microphone supporting member and the main body are displaced to the unfolding position. In an analogous art, Magnasco discloses a connector located between the microphone supporting member and a main body of the wireless headset and coupled thereto to allow for displacement of the main body and microphone supporting member relative to one another between a folding and unfolding

position (microphone boom (Fig. 3, 102) is coupled to a shaft member (Fig. 3, 202) to allow rotation of the microphone boom, which is connected to the headset housing (Fig. 1, 110), Magnasco, Col. 3, lines 16 – 24 and Col. 4, lines 20 – 29); a sensing device located in the connector for automatically determining whether the microphone supporting member and a main body are displaced to one of the folding and unfolding positions (a printed circuit board providing optical switch for controlling the operational condition of the headset through the different positions of the microphone boom, Magnasco, Col. 5, line 3 through Col. 6, line 35); and a controller connected to the sensing device and the Bluetooth module, the controller being operative to establish a link between the wireless headset and a master terminal registered in the wireless headset if it is determined that the microphone supporting member and the main body are displaced to the unfolding position (PCB circuitry having a radio transmitter and a optical transceiver, controls the functions of the headset and the operational condition of the headset, whereas its functions are provided through the different positions of the microphone boom with respect to the housing such as “off or standby or mute or talk”, Magnasco, Col. 3, lines 25 – 35 and Col. 5, line 3 through Col. 6, line 35). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the technique of Magnasco to the system of Liang in order to provide a cordless headset having a microphone boom wherein the headset is selectively configured to be on, off or muted according to a rotational position of the microphone boom and using an optical transceiver

which is less susceptible to wear, contamination and misalignment and occupies less space than prior mechanical switch devices.

Regarding claim 2, Liang in view of Magnasco as applied to claim 1 above discloses wherein the connector attaching the microphone supporting member to the main body of the wireless headset includes a hinge structure housing the sensing device (optical transceiver (Fig. 3, 228) near the rotator element (Fig. 3, 210) is within the headset housing, Magnasco, Col. 5, lines 3 – 26).

Regarding claim 11, the claim is interpreted and rejected for the same reason as set forth in claim 1.

8. Claims 3 – 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liang in view of Magnasco and in view of Specification of the Bluetooth System v1.0B, December 1st 1999 (hereto referred as Bluetooth Specification v1.0B).

Regarding claim 3, Liang discloses a wireless headset with a Bluetooth module comprising a microphone supporting member having a microphone installed therein and coupled to a main body of the wireless headset (Liang, Col. 3, lines 66 through Col 4, lines 1 – 12). Magnasco discloses a hinge structure located between and attached to the main body and microphone supporting member so that the main body and microphone supporting member are displaceable relative to one another between a folding and unfolding position; a sensing device (optical transceivers, Fig. 3, 228 and 230) located in the hinge structure for determining the unfolding position (off, on or mute) and a controller

connected to the sensing device (Magnasco, Col. 3, lines 25 – 35 and Col. 5, line 3 through Col. 6, line 35).

However, Liang in view of Magnasco as applied above does not specifically disclose Bluetooth module registering an ID of the wireless headset in a counterpart terminal through the Bluetooth module if the unfolding position is determined. In an analogous art, Bluetooth Specification v1.0B discloses Bluetooth module for registering Bluetooth device address of the device in a counterpart device through the Bluetooth module (Bluetooth Specification v1.0B, User Interface aspects, Page 25). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Bluetooth Specification v1.0B to Liang and Magnasco in order to provide an improved structure of earphone being small, light and easy for storage with excellent quality of communication, compatibility and flexibility to adapt to many devices having the same type of technology.

Regarding claim 4, Liang in view of Magnasco and in view of Bluetooth Spec v1.0B discloses wherein the microphone supporting member is attached to the main body of the wireless headset in the hinge structure (microphone boom is attached to the headset through a shaft member in order to permit movement of the microphone boom with respect to the headset housing, Magnasco, Col. 4, lines 20 – 29).

Regarding claim 5, the claim is interpreted and rejected for the same reason as set forth in claim 3.

Regarding claim 6, the claim is interpreted and rejected for the same reason as set forth in claim 5.

Regarding claim 7, the claim is interpreted and rejected for the same reason as set forth in claim 5.

Regarding claim 8, the claim is interpreted and rejected for the same reason as set forth in claim 5.

Regarding claim 9, the claim is interpreted and rejected for the same reason as set forth in claim 5.

Regarding claim 10, the claim is interpreted and rejected for the same reason as set forth in claim 5.

Response to Arguments

9. Applicant's arguments with respect to claims 1 – 11 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Baranowski et al. (US 2002/0067825 A1) discloses integrated headphones for audio programming and wireless communication with a biased microphone boom.

Braund (US 6,373,942 B1) discloses hands-free communication device.

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Vangarde (US 5,504,812) discloses headset for use with a radiotelephone.

Bodley et al. (US 2002/0021800 A1) discloses a headset communication unit.

Lin (US 2003/0119565 A1) discloses folding collapsible wireless transmitter-receiver earphone.

Pronk (US 6,707,923 B2) discloses foldable hook for headset.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Un C Cho whose telephone number is (571) 272-7919. The examiner can normally be reached on M ~ F 8:00AM to 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on (571) 272-7922. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


4/29/05
ELISEO RAMOS-FELICIANO
PATENT EXAMINER

Un C Cho
Examiner
Art Unit 2687

4/27/05 UC